

CLAIMS

1. Method of increasing the size of starch grains
and/or the starch content of a plant or of a
5 plant part, in which the gene of a starch
phosphorylase in the cells of the plant is
switched off.
2. Method of obtaining plants or plant parts that
10 produce starch grains of increased size or with
higher starch content, said method comprising
switching off the gene of a starch phosphorylase
in the cells of the plant.
- 15 3. Method according to Claim 2, including stages
comprising switching off, by inserting
nucleotide(s), the gene coding for said
endogenous starch phosphorylase in a plant cell,
and regenerating the plant from the transformed
20 cell, said transgenic plant thus obtained having
starch grains of increased size, and/or a higher
starch content.
4. Method according to one of the Claims 1 to 3, in
25 which the plant is potato, broad bean, beet,
spinach, pea, wheat, maize or rice.
5. Plant cell that can be obtained by the method
according to any one of the Claims 2 to 4.
- 30 6. Transgenic plant containing a plant cell
according to Claim 5.

7. Seed obtained from the plant according to Claim 6, characterized in that it is of increased size, and/or it has an altered starch content.
- 5 8. Use of the polynucleotide sequence SEQ ID N°2 for the production of a plant with an altered size of the starch grains and/or altered starch content.
- 10 9. Use according to Claim 8, characterized in that the plant obtained is selected from potato, broad bean, beet, spinach, pea, wheat, maize or rice.